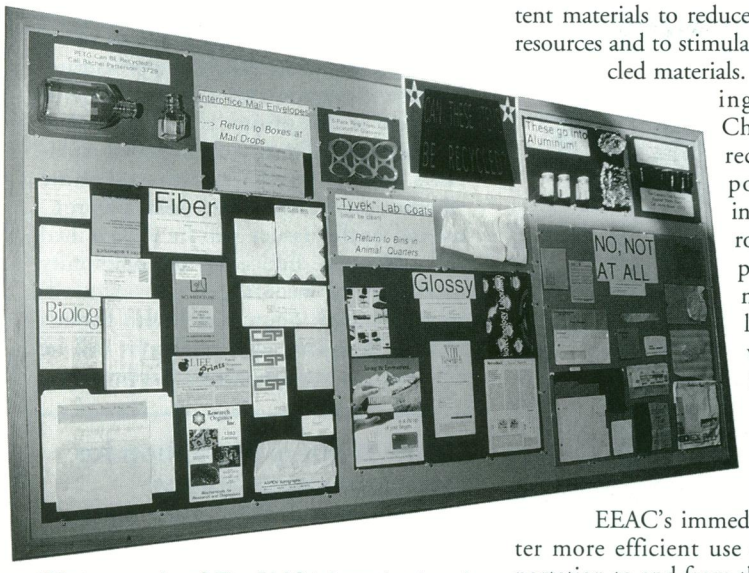

What goes where? The EAAC information board tells employees what materials can be recycled.

University Environmental Graduate Program. The students, as part of their classroom studies, have characterized the ecosystem of the NIEHS campus, providing a better understanding of the plant and animal life on the site. Their final report details three separate guidance plans that could be followed to achieve various management levels for the institute's 509 acres.

The management plan favored by EEAC would create a more natural appearance on the institute grounds. The plan would prohibit mowing and landscaping activities around trees, allow for an unmown buffer zone near the institute lake, and provide for the planting of trees and shrubs whose bloom and fruit periods would be distributed throughout the year.

In keeping with the educational outreach program being pursued by NIEHS, EEAC is interfacing with Project Wild, a nationally recognized, interdisciplinary program that integrates wildlife principles into environmental and conservation efforts. Project Wild stresses the importance of wildlife as an environmental health indicator and as a measure of the quality of life in general. This fall, NIEHS will serve as host for Project Wild workshops on terrestrial and aquatic wildlife.

According to EAAC Chair Robert Chapin, successful implementation of these programs should pave the way for other ventures. "We will continue to push for a reduction in our use of natural resources, more efficient strategies for necessary resource use, and a more environmentally responsible management of the institute grounds," says Chapin.

Some of the new proposals are extensions of current programs. The committee is recommending that NIEHS significantly increase its procurement of recycled-content materials to reduce pressure on virgin resources and to stimulate markets for recycled materials. "If you're not buying recycled," says Chapin, "you're not recycling." The proposal also calls for increased use of environmentally friendly products, such as nontoxic inks and low-bleach paper, whose manufacturing generates less harmful chlorination by-products like PCBs.

One of the EEAC's immediate goals is to foster more efficient use of available transportation to and from the institute. "Of all our employees, fewer than 10 use alternatives to private automobiles to get to work," says Chapin. "Since automobile exhaust is the major source of air pollution in the Research Triangle area, promoting more efficient means of local transport would have immediate benefits."

Some of the alternatives being discussed by committee members include promoting the institute's new carpool program, encouraging employee participation in mass transit and shuttle pick-up at bus drop-off points, and working with local planners to build public bikeways.

Chapin says he's learned a valuable lesson from his committee's relentless commitment to environmental goals. "If you unleash the creative power of the employees, a lot of great things are going to happen. Our efforts clearly demonstrate that management and employees can work together to bring about beneficial changes in areas where they are needed."

NTP Announces Bioassay Results

The National Toxicology Program has presented six more technical reports in its ongoing series of toxicology and carcinogenesis studies. All six reports were approved by the NTP's Board of Scientific Counselors' Technical Reports Subcommittee in a public review held November 29 at NIEHS. Each report involves a series of long-term studies in which male and female rats and mice were given a range of doses of test chemical followed by extensive histopathologic examination.

Nickel oxide, nickel sulfate, and nickel subsulfide. Three separate studies were performed to evaluate and compare the toxicity and carcinogenicity of three nickel compounds prominent in nickel mining and refining. These studies involved inhalation exposure to atmospheres containing particles of nickel oxide, nickel sulfate hexahydrate, or nickel subsulfide. The three nickel compounds all caused chronic lung inflamation in male and female rats and mice, but the carcinogenic responses varied.

Nickel subsulfide exhibited clear evidence of carcinogenic activity in male and female rats, but not in mice, based on the occurrence of neoplasms in the lung and adrenal gland. Nickel oxide also caused neoplasms at these two sites in male and female rats and also showed equivocal evidence of carcinogenicity in female mice based on a marginal increase in lung tumors. In contrast, the water-soluble nickel sulfate hexahydrate exhibited no evidence of carcinogenic activity in either rats or mice.

Isobutyl nitrite. Isobutyl nitrite is used in fragrances and is also abused as a euphoric. It was nominated for study to investigate a possible association with the higher incidence of Kaposi's sarcoma among male homosexual AIDS patients (see Haverkos et al., *EHP* 102: 858–861). When animals were exposed to this chemical via inhalation exposure, male and female rats exhibited clear evidence of carcinogenic activity, and male and female mice exhibited some evidence of carcinogenicity, based on increased incidences of lung neoplasms in all four sex/species groups.

Triethanolamine. Triethanolamine is used as a surfactant in a wide variety of industrial and household products, including cosmetics and detergents. When administered by dermal application to rodents, triethanolamine was associated with increased incidences of liver tumors in female mice. Marginal increases in the incidences of liver tumors in male mice and kidney tumors in male rats were judged equivocal.

2,2-Bis(bromomethyl)-1,3-propanediol. 2,2-Bis(bromomethyl)-1,3-propanediol is a brominated fire retardant (trade name FR-1138) used to treat molded plastics and polyurethane foam. When given in feed, this chemical was clearly carcinogenic to a variety of organs in male and female rats and mice, including at least 14 distinct tissue sites in male rats.

Environmental Justice Grantee Orientation Meeting

On 8 December 1994, new grantees in the NIEHS environmental justice research grant program met at the institute for an orientation session. The primary objective of this grant program is to bridge the communication gap among members of communities affected by environmental pollu-


NIEHS

Grantees meet. New environmental justice research grantees include (left to right) Dianne Quigley, Carlos Porras, Katsi Cook, and Michael Belliveau.

tants, health care providers, and environmental health researchers. The program seeks to ensure that the communities involved have a demonstrable role in identifying and defining problems and risks related to environmental health and in shaping future research approaches to such problems.

The purposes of this orientation meeting were to share information among grantees and NIEHS staff, to allow grantees to learn of common or similar approaches in their projects, and to begin developing a communication network. Following a welcome and introduction by Anne Sassaman, director of extramural research and training, and Allen Dearry, program administrator, the principal investigator of each grant described his or her project, including its history, objectives, and methods.

Dianne Quigley at Clark University, in Worcester, Massachusetts, in collaboration with Native Americans for a Clean Environment and Citizen Alert Native American Program, is working to increase the awareness of Native American communities exposed to radiation contamination in their environment. They are designing and implementing a plan for risk management and prevention at the Western Shoshone Nation near the Department of Energy's Nevada Test Site and at the Cherokee Nation at Sequoyah Fuels, Oklahoma, a uranium processing facility that was in operation for 23 years. Education modules of two types will be implemented: community modules, created exclusively by Native American collaborators; and health education modules, created by scientists and health care provider trainers. Relevant materials and strategies will be shared with other Native American communities.

Katsi Cook at The State University of New York, Albany, in collaboration with St. Regis Mohawk Health Services, is designing community-based strategies for environmental health education, outreach, and training in the Akwesasne Mohawk community, which is adjacent to a Superfund site in the Great Lakes Basin–St. Lawrence River watershed. Environmental hazards have resulted from the rapid transition from an agricultural to an industrial environment. Cook is a nurse midwife and a member of the Mohawk community, and the project is implemented, evaluated, and disseminated explicitly through community members.

Michael Belliveau and Carlos Porras from Citizens for a Better Environment, in collaboration with the Labor Occupational Safety and Health Program and the Center for Occupational and Environmental Health at UCLA and the Community Health Foundation, aim to educate community members and health care providers, promote adoption of pollution prevention measures, and establish a community-based strategy for reducing community and worker exposure to environmental pollutants in southeast Los Angeles, a highly industrialized area home to a low-income population, which is approximately 90% Hispanic and Latino. A major objective of this project is to analyze data to confirm the list of environmental pollutants already known and to determine whether gaps exist in the data. Environmental health issues will be determined and addressed. Education of community members and medical care providers will be emphasized. Sources of health hazards will be identified, and strategies will be developed to attempt exposure reduction.

Grant Writing Workshop for Environmental Justice

An instructional workshop for writing a grant application in response to request for applications (RFA) ES 95-002, "Environmental Justice: Partnerships for Communication," was held at NIEHS on December 9. This RFA is a reannouncement of the initiative that resulted in three awards earlier this year (see previous story). At this workshop, NIEHS staff discussed the fundamentals of how to write an NIH grant application. Open to the public, the workshop attracted 30 participants, who spent the day learning about this RFA and the NIH grant process.

Allen Dearry, program administrator, explained the mission of NIEHS, particularly as it relates to environmental justice, and then addressed this RFA specifically. The objectives, eligibility criteria, and review process were described. The three current grantees, Dianne Quigley, Katsi Cook, and Michael Belliveau, then presented their projects and discussed how they put together successful applications for the first round of competition. They discussed personnel interactions among community members, health care providers, and researchers, and provided the audience with some helpful hints on how to bring people together for successful collaborations. Diane Becker, director of the Center for Health Promotion at Johns Hopkins University, and a member of the Special Review Committee that evaluated the applications submitted in the first competition, explained her impressions of the review process. The review committee is composed of a 1:1:1 ratio of community representatives, health care providers, and environmental health scientists. After the presentations Dearry led the group through a lesson in filling out a PHS 398, the official NIH grant application form. Carolyn Winters, grants management specialist, reviewed budgetary considerations and needed assurances and certifications. General questions and answers and individual discussions rounded out the session.